EXHIBIT C

LITSON.

J. Alex Little
Zachary C. Lawson
615.985.8189
alex@litson.co
zack@litson.co

May 28, 2024

VIA EMAIL

The Honorable Philip Kopczynski
Assistant United States Attorney
Office of the U.S. Attorney
for the Western District of Washington
700 Stewart Street, Suite 5220
Seattle, WA 98101
philip.kopczynski@usdoj.gov

Re: *United States v. Nevin Shetty,* 2:23-CR-84-TL
Rule 16(b)(1)(C) disclosure: Omid Malekan

Dear Counsel:

Pursuant to Federal Rule of Criminal Procedure 16(b)(1)(C), the Defendant hereby provides this notice that it intends to call Omid Malekan as a witness to provide testimony under Federal Rules of Evidence 702, 703, and 705. Mr. Malekan's qualifications are set forth in the attached curriculum vitae, which includes all publications of his in the previous ten years. Mr. Malekan has not testified as an expert at trial or by deposition in the previous four years. Mr. Malekan's opinion is provided in the attached report. While Mr. Malekan's testimony depends in large part on what the government presents in its case-in-chief, the testimony summaries and opinions below are all within Mr. Malekan's expertise.

The Defendant anticipates that Mr. Malekan will provide testimony regarding the following, as further reflected in his attached report:

1. **Background on TerraLuna, Anchor, and UST.**

   It is anticipated that Mr. Malekan's testimony will provide background on TerraLuna, Anchor, and UST. It is anticipated that his testimony will describe public sentiment toward and support of TerraLuna. It is anticipated that his testimony will describe why many people believed TerraLuna was a safe, profitable long-term investment and why he was personally skeptical of it as a long-term investment.

The basis of his opinions and testimony will be his experience as a blockchain security consultant for over 10 years.

2. **TerraLuna as a stablecoin and the market crash.**

   It is anticipated that Mr. Malekan's testimony will describe the perception of TerraLuna as a stablecoin and the impact of that belief on investor confidence. It is anticipated that he will describe the TerraLuna market crash and the impact of the crash on financial loss.

   As to this topic, Mr. Malekan will base his opinion and testimony on the same information listed in topic 1.

3. **Mr. Malekan may testify as a rebuttal witness to the government's expert testimony about any aspect of cryptocurrency and blockchain technology.**

   As to this topic, Mr. Malekan will base his opinion and testimony on the same information listed in topic 1. The Defendant will supplement a rebuttal disclosure at the appropriate time.

The Defendant reserves the right to supplement this disclosure in accordance with the Federal Rules.

Sincerely,

/s/ J. Alex Little

J. Alex Little
Zachary C. Lawson
6339 Charlotte Pike Unit C2321
Nashville, TN 37209
alex@litson.co
zack@litson.co

Jeffrey B. Coopersmith, WSBA No. 30954
1015 Second Avenue, Floor 10
Seattle, Washington 98104-1001
Ph: (206) 625-8600 | Fax: (206) 625-0900
jcoopersmith@corrcronin.com

EXPERT REPORT OF OMID MALEKAN

The Case For and Against TerraLuna/Anchor/UST

I was always skeptical of TerraLuna and its UST stablecoin. My skepticism was based on the design of so-called "algorithmic stablecoins," which I had always considered flawed. A dollar-denominated liability like UST should be backed by an independent store of value, as is the case with so-called "fiat-backed" stablecoins, which are claims on cash deposits or government bonds. Algorithmic stablecoins are based mostly on circular logic and therefore unreliable. This skepticism had been confirmed by the failure of similar projects before Terra.

Beyond the core design, I was skeptical of the team that issued Luna. There was a cult of personality around the founder, and the founding company owned half of all Luna tokens. Both factors went against the project's claim of being decentralized.

All of that said, there were features of UST that I considered improvements over prior attempts to build an algorithmic stablecoin. The backing cryptocurrency, Luna, was the native token of an independent proof-of-stake blockchain, and such coins had proven themselves as reliable stores of value. UST was claimed to be incorporated into a popular FinTech app (Chai) in South Korea, creating additional demand. According to some reports, Chai had over 2.4 million users in South Korea and processed over 130,000 transactions each day.

Terra was backed by prominent people and respected VC funds in the cryptocurrency industry. They included:

- Venture investors Lightspeed Venture Partners, Coinbase Ventures, Binance Labs, Hashed, Pantera Capital, and Hashkey Capital;
- Crypto research and investment firm Delphi Digital;
- Crypto merchant bank Galaxy Digital, led by Mike Novagratz, a former Goldman Sachs partner; and
- Trading firm Jump Crypto, a subsidiary of one of the largest high-frequency trading firms on Wall Street.

Algorithmic stablecoins were in some ways the "holy grail" of crypto, sought after due to their purported ability to deliver a dollar-denominated coin at scale without any connectivity to the traditional finance system. Many believed the design was possible and that the prior attempts that had failed simply needed to be improved upon. They pointed to factors such as the cutting-edge nature of the Terra blockchain and the integration of UST into a FinTech app in Korea as key improvements that addressed the flaws of its predecessors.

For the stability of UST, some pointed to the academic research co-authored by Harvard Business School professor Marco Di Maggio. A widely circulated paper (co-authored with some of Terra's co-founders) argued the design was robust. Defenders of the project also pointed to the stablecoin's remarkable ability to maintain its peg as it grew into the billions, and the seemingly organic way it had returned to $1 after briefly losing the peg in 2021.

These investors argued that the stability and success of UST would create a virtuous cycle, where Luna would appreciate in value, making the stablecoin that much stronger. They also pointed to the founding company's introduction of the Luna Foundation Guard, an additional reserve that held Bitcoin and other cryptocurrencies.

I was surprised by the number of intelligent people who believed in Terra and the viability of UST, people who were knowledgeable about the nuances of my industry. Some were friends and/or people whose judgment I respected. Their confidence made me question my own skepticism. As time went on, I had to concede that if my theory on the flaws of all algorithmic stablecoins was accurate, then Terra would have failed already. I too was impressed by its ability to regain the peg seemingly on its own in 2021 and to continue to grow in 2022.

My friends encouraged me to actually try the product, which I did. I was impressed by the overall quality and execution, by crypto standards. The popular Terastation wallet was easy to use, and depositing UST into Anchor protocol to earn interest was easy.

These interactions made me question my own beliefs and to wonder whether the unique features Terra had introduced to the algorithmic approach really did make it different. At the time of Terra's collapse, I was more concerned about the severe centralization of the project, and the behavior of its founder, than the risk of a total collapse.

Investor Sentiment and Beliefs

Luna, the cryptocurrency, appreciated materially in the year leading up to the collapse, having stood the test of time. UST, the stablecoin, offered a 20% yield *on dollars* if deposited into a decentralized finance protocol named Anchor. This was significantly higher than the interest one could earn on dollars anywhere else.

It should be noted that crypto attracts a broad range of people, many of whom come from technology backgrounds. Terra was appealing as a technology. Those of us who were skeptical of it were more concerned with its novel financial model. But Bitcoin itself had once been doubted by most finance experts and proved them wrong. Many people believed Terra was on a similar trajectory. Their confidence was aided by the ongoing crypto bull market where everything was going up in value, bolstering investor confidence and making people more willing to trust new projects. This led to the Terra Luna Network eventually gaining a total market cap of more than $60 billion, with more than fifty consumer-facing apps available in various stages of development.

People with a greater risk appetite bought the Luna cryptocoin, which was designed to appreciate in value if the project gained ground. Like all free-floating cryptocurrencies, Luna was volatile and not for the risk averse. Investors who were risk averse but still believed in the project acquired UST and deposited it into Anchor to earn the 20% yield, offered as a marketing strategy. This was believed to be a relatively safe way to earn interest, at a time when rates across the economy were low. But it was never going to last forever. In light of the high interest rates, there were several Anchor proposals in Q1 2022 to reduce the interest rate it paid out. For example, a proposal passed in April 2022 to reduce the interest rate 1.5% per month until equilibrium was established between borrowers and the lending rate.

There were other, more esoteric forms of yield farming involving UST, such as depositing it into Mirror, a separate DeFi protocol designed by Terraform labs. At one point, Mirror reportedly held over $2.2 billion in collateral. But this wasn't nearly as popular as putting UST into Anchor, which to some people was closer to an enhanced saving account than risky crypto investment.

Terra was always controversial in the cryptocurrency industry. There was a vocal minority warning about the risk of total collapse all along. But it also had passionate believers, many of whom were respected CEOs, venture investors, hedge fund managers, and entrepreneurs. It was the favorite project of a top crypto research firm called Delphi Digital, one whose premium content I gladly paid for given their in-depth coverage of other projects. It was also listed on

many top tier crypto exchanges, in the US and abroad. As time went on, some of the project's detractors changed their mind due to its apparent stability and growth. Overall, the general sentiment towards the project from inside the cryptocurrency industry was positive. All this led UST to become the third largest stablecoin, with a market cap of approximately $18 billion.

Trust in Colleagues and Similar Investments

My associates were in the process of setting up a crypto hedge fund, one that would buy and sell different cryptocurrencies. They had long been investors in Luna and personally held UST deposits in Anchor. Given the yield differential with dollars deposited elsewhere, they decided to set up a separate yield product, a fund that would take investor deposits, convert them to UST, deposit in Anchor, and pass the yield back to their investors. This model was discussed openly in the industry and other fund managers contemplated setting up similar products.

My associates never launched the yield fund, but they did start the hedge fund (where I am an investor and advisor) and it has done well.

The confidence made me question my own skepticism and to think harder on why it might be misplaced. Their beliefs also contributed to my primary concern shifting from the stability of UST to the centralization of the project. Crypto is a new financial primitive and every project is an experiment in its own way. Years of experience had taught me to not be dogmatic and always question my own beliefs.

Stablecoin Perception

The belief that TerraLuna was a stablecoin project led to many people considering UST a safe investment, at least as far as cryptocurrencies were concerned. The stability was implied in the name—everyone trusts the dollar. Putting money in Anchor was always more about the opportunity to earn yield than it was about speculation.

The quick regain of its peg to the dollar in 2021 played a major role in bolstering this belief because it forced skeptics like me to reevaluate our beliefs. Before Terra, the main critique against algorithmic stablecoins was their reliance on circular logic, which made them prone to "runs" and "death spirals."

The assumption was that small depegs in the stablecoin would make the backing asset fall in value, leading to a larger depeg, and eventual collapse. UST's ability to quickly recover from an approximate 10% depeg prior to its collapse challenged this assumption. The fact that it was able to recover, ostensibly on its own, challenged the main critique against it, bolstering investor confidence.

Impact of the Crash

Terra was one of the biggest projects in crypto when it failed. (The combined market value of Luna and UST put it on par with Lehman Brothers). The popularity of Anchor's 20% yield had pulled in many institutional and retail investors, people who believed they were doing something relatively safe as far as crypto investing was concerned.
The fact that both coins collapsed so quickly contributed to the devastation. There was little time for anyone to react, and unlike other crypto coins that had fallen but recovered in the past, there was no hope of a recovery because the algorithmic approach had once again failed.

Those who invested in Luna believed it could go significantly higher. For those who deposited UST into Anchor, the yield opportunity was an order of magnitude higher than what could be earned on dollars anywhere else, including other parts of crypto. Both factors led to investors letting down their guard and becoming overexposed.

Marketing and Perception Management

Marketing played an important role in legitimizing the project and communicating to the public that it was safe. The partnership with the Washington Nationals was groundbreaking on several fronts. It showed that the team behind Terra were effective businesspeople. It also showed that UST was gaining adoption as a medium of exchange (means of payment) for day-to-day activities by non-speculators. This was something all other stablecoins (including the safer fiat-backed variety) had failed to do. It also created a new avenue for demand which is important for any algorithmic stablecoin.

The marketing strategies were effective in proving the team behind the project was not a fly-by-night operation, something other crypto projects were occasionally accused of. A deal of such magnitude with a pro sports team presumably involved a good amount of back forth, due diligence, and legal structuring. All of this served as an effective counterargument to the claim that UST was dangerous. MLB teams don't regularly make sponsorship deals with controversial or unsafe products

Aggressive marketing campaigns help legitimize new, confusing, and potentially dangerous products. Most people are aware that many crypto projects turn out to be scams or poorly thought out. Aggressive marketing, which has historically included Superbowl commercials with famous actors and the renaming of sports venues, signals that a project is serious and has professional leaders with a long term vision. This derisking makes investors more likely to invest.

The primary lesson learned from the TerraLuna crash is that crypto is new and confusing, and that even savvy business people with expertise in other domains can be wrong. The people in charge of the Washington Nationals (or running the formerly named FTX Arena) as presumably capable decision-makers in other contexts. As were the fund managers and affluent retail investors who lost money in the crash.

Comparative Analysis

Compared to successful stablecoins like USDC and USDT, the primary differentiator was Terra's reliance on the algorithmic model, as opposed to an off-chain cash reserve. Some experts within the crypto industry preferred the algorithmic approach because it was more decentralized. Compared to other algorithmic stablecoins, Terra was unique in having its own blockchain, which was secured by its native coin Luna.

Market Context and Timing

Terra's rise occurred during the largest crypto bubble to date. Positive sentiment, greater adoption, and the continued flow of capital into the industry made people more willing to invest. It also came of age at a time when stablecoins of all kinds had emerged as a possible "killer app" for crypto, growing to over $150b in dollar coins on various blockchains.

Mainly the fact that Terra had withstood prior depegs and grown to be one of the largest (by market value) and most visible projects in the industry made Terra appear to be a sound investment.

Due Diligence and Analysis

Every investor has their own due diligence process and given the newness of crypto, there are few "best practices." For Luna, investors could have looked at the design of its blockchain, its token model and consensus mechanism. They could have also looked at adoption metrics like active addresses, wallet downloads, and transaction fees. They could have listened to the views of experts from academia, tech and the investment community.

But it's important to note that a lack of historical context makes all crypto due diligence harder than for other, more established, asset classes.

Investors could have read the project white paper and supporting research, from academia, crypto research firms, or other investors. They could have looked on social media or listened to podcasts debating the risks to the design. They could have studied the benefits and risks of different approaches to issuing a stablecoin. They could have sought out critiques of the algorithmic model for a stablecoin and studied why prior attempts had failed.

Technological Advancements

Terra was the first algorithmically issued stablecoin to live on its own proof-of-stake blockchain, secured by its own validators. It was built on top of a software package known as the Cosmos SDK, which was both popular and respected at the time. It was one of the first projects to offer DeFi protocols that relied exclusively on its own stablecoin. It also had easy to use wallets and interfaces—something most crypto projects lacked.

Terra's tech stack was generally considered cutting edge for its time, using the best software, consensus mechanism, programming language, and so on. The founding team at Terraform labs had a reputation for shipping quality products quickly.

Expert Opinions and Endorsements

There were many endorsement and positive opinions from respected experts and institutions that supported TerraLuna's investment case. Terra was backed by the VC firms mentioned above—most of which were highly respected at the time and have gone on to have general success investing in crypto in the years since. Its model was endorsed by a respected academic at a top business school. Leading crypto research outfits put out research supporting its approach. Entrepreneurs in the crypto industry—like the founder of Frax Finance, a different stablecoin project that is worth several billion dollars today—praised the founding team and offered to collaborate with them. Other entrepreneurs founded new businesses meant to exist entirely on top of Terra. I don't recall the name of the company, but one of my students found a summer internship at a startup building on top of Terra and Anchor. Mike Novogratz even got a tattoo based on it and bragged about it on Twitter Luna was listed on prominent crypto exchanges domestically and abroad. Its coins were traded by major market makers.

These endorsements significantly influenced investor confidence. They helped legitimize the approach and counter skeptics like me. There was a general perception that "all of these smart people can't be wrong."

Risk Mitigation Measures

Managing risk in crypto is difficult. There is not much anyone can do, other than being skeptical of lofty promises, limiting exposure to any one coin, and avoiding leverage. There are few hedging options, and the kind of quantitative

risk management that's popular in other markets often doesn't work because there is limited price history and correlations are seldom stable.

One strategy is to limit one's exposure to large projects and blue chips, like Bitcoin and Ethereum.

Most of these strategies did not contribute to the perception of TerraLuna as a relatively safe investment, but Terra's continued growth did make it seem like a blue chip to some shortly before the collapse.

Performance Metrics

The stability of UST in its final year of existence was up there with any other stablecoin. The price appreciation of Luna was one of the highest in all crypto in its final year. The partnership with the Washington Nationals made it one of the few projects to cross over from pure speculation to "real world adoption." The value of the Bitcoin and other coins held by the Luna Foundation Guards made it one of the largest non-dollar reserves in the industry. The user metrics made it one of the most popular projects after blue chips Bitcoin and Ethereum.

At over $40b in market cap, Luna was a top ten cryptocurrency. It had climbed from being worth less than $1 per coin in its initial fundraising rounds to over $100. At its peak, UST was the 3rd largest stablecoin with $18b in circulation. With over $12b in deposits, Anchor's balance sheet was among the highest in DeFi lending protocols. The Luna Foundation Guard held close to $2b in Bitcoin and other crypto assets, making it one of the largest Bitcoin owners of that time that was publicly known.

Regulatory Environment

Crypto was relatively unregulated at that time. Terra could not credibly claim any particular regulatory safety. The novel design of most crypto solutions means they don't fit neatly inside current regulatory structures.

Terra's founder was subpoenaed by the SEC in 2021, but not for Luna or UST. Terra had a lesser used DeFi protocol called Mirror and the SEC was concerned it violated U.S. securities laws. The design of the overall project or the stability of UST never came up. Ironically, this was perceived by some people as a de facto blessing by a major US regulator. Mirror was a minor part of the Terra ecosystem, much smaller than Luna, UST, or Anchor. Some people argued the SEC must have looked at the larger components and deemed them compliant.

Community and Ecosystem

Terra had a passionate community that kept growing until it collapsed. Both the founder Do Kwon and Terraform labs had close to 1m followers on Twitter. The Terra community on Reddit had over 50k followers. Its mechanics were discussed in the most popular crypto-industry podcasts, including *Unchained* and *Bankless*. Believers and investors campaigned for its growth and viability at conferences, on social media, and on YouTube. I vividly recall most of the attention of the crypto industry being focused on this one project in early 2022. This enthusiasm may have been perceived by some investors as an indicator for future success.

The community played a significant role in reinforcing the belief in TerraLuna's potential. Crypto ecosystems aim to be decentralized and therefore need passionate communities with engaged members to grow.

Risk-Return Perception

Luna's perceived risk-return profile compared to other available investment opportunities: Stablecoins were by then emerging as the killer app of crypto, and a project that could issue a decentralized and capital efficient one at scale was understood to have a lot of upside.

UST's perceived risk-return profile compared to other available investment opportunities: Those who didn't question the stability mechanism perceived it to be a dollar-linked investment with limited downside. The 20% yield from Anchor was generally understood to be subsidized by Terraform Labs as marketing spend, making it less risky than other DeFi protocols that generated yield by enabling leverage or other risky behavior.

Luna's popularity, size, marketing campaign, creation of the BTC reserve, focus on issuing a stablecoin, and supposed integration into a FinTech app all contributed to it seeming less risky than it was.

Behavior of Early Investors

Many of the people who invested in Luna early—and saw material gains—claimed to hold on to their investment even as it appreciated. Some VC firms who had invested in the project proceeded to invest in other solutions built on top of it. Others defended it in public forums such as podcasts, social media, and crypto conferences.

These early successes communicated confidence, and the opportunity to participate in a successful project to later investors.

Final Thoughts

The most important lesson I learned from the rise and fall of Terra was that flawed models can persist for a long time before reality catches up with them, especially during a speculative bubble where animal spirits are high. This persistence can influence the views of otherwise intelligent people, creating an echo-chamber that pulls in less knowledgeable outsiders. I also learned that crypto remains a new frontier and that some ideas have to be tried before they can definitively be deemed ineffective.

DocuSigned by:
Omid Malekan
4B3B45B11BEA42A...

Omid Malekan
May 27, 2024

OMID MALEKAN

WWW.EXPLAINER-IN-CHIEF.COM
Om44@columbia.edu, 646-270-8877

EXPERIENCE

COLUMBIA BUSINESS SCHOOL, New York, NY
Adjunct Professor, 2019 – Present
- Teach popular "Introduction to Blockchain & Cryptocurrency" class - average instructor rating 4.62/5
- Affiliated faculty at Bridger Family Digital Finance Lab
- Lecturer and SME on Columbia Business School's "Blockchain in Business: Beyond the Hype" executive education course
- Faculty advisor to the CBS Fintech and Blockchain club & university- wide Blockchain@Columbia club

MANAGED FUNDS ASSOCIATION, Washington, DC
Consultant, Jan 2023 – Nov 2023
- Official digital asset advisor for largest global alternative asset management industry group
- Wrote association's official policy paper on digital asset regulation
- Worked with blue chip global hedge funds in formulating an internal digital asset strategy

TENEO, New York, NY
Consultant, Jan 2023 - Present
- Crypto-currency advisor to global CEO advisory firm
- Worked on client consultations and content creation for some of the largest players in crypto, including public companies.
- Appeared on digital asset panel at the American Enterprise Institute - hosted by former House speaker, Paul Ryan

CITI VENTURES, New York, NY
Blockchain Innovation Expert, 2018 – 2022
- In-house blockchain and digital asset expert for corporate venture arm of Citibank
- Presented to CEO and C-suite on blockchain developments
- Worked with leaders across the bank to formulate a firm-wide blockchain strategy
- Co-wrote Citi's official policy on central bank digital currencies
- Met on firm's behalf with Federal Reserve, OCC, CFTC, SEC, European Central Bank, British FCA, Swiss National Bank, BAFIN, FINMA, Monetary Authority of Singapore & Abu Dhabi Global Markets
- Co-author of Bitcoin report for firm's premier thought leadership publication – most read report in series history
- Worked with venture investing team on numerous blockchain and digital asset related investments

PUBLICATIONS & MEDIA MENTIONS

Books

"Re-Architecting Trust, The Curse of History and the Crypto Cure for Money, Markets and Platforms" (BookBaby) 2022
- The Story of the Blockchain: A Beginner's Guide to the Technology That Nobody Understands (TSS) 2018

Essays & OpEds
- Fortune: "The crypto kids are onto something–and they shouldn't listen to billionaire bankers like Jamie Dimon" (2023)
- Coin Desk: "Dollar Stablecoins Are Great for Users and the US Government" (2023)
- Harvard Business Review: "What Skeptics Get Wrong About Crypto's Volatility" (2022)
- Financial Times: "Crypto Believers Want to Know: What's the Carbon Footprint of the U.S. Military?" (2021)
- Coin Desk: "Tribalism, Meritocracy, Money: What Sports and Crypto Fans Have in Common (2021)
- New York Times: "If Fund Managers Back Bitcoin" (2018)
- New York times: "I Created 'The Bernank' on YouTube. And I Was Mostly Wrong" (2018)
- Spectator Magazine: "How Blockchain Can Help Defeat State Censorship" (2018)
- Forbes "Does Quantitative Easing Hurt More Than Help?" (2017)
- Wall Street Journal "Why All the Alarms About a Slight Rate Hike?" (2015)

- YouTube "Quantitative Easing Explained" (2010) – viral video with over 6m views

Media Mentions

- Wall Street Journal: "Can Coinbase's Blockchain Fix Its Losing Streak" (2023)
- BNN Bloomberg: "Coinbase Sued by SEC for Breaking US Securities Rules" (2023)
- Wired: "Coinbase and Binance Lawsuit Puts Crypto on Ice" (2023)
- Bloomberg Law: "SEC's Coinbase Lawsuit Heralds Deepening US Crypto Crackdown" (2023)
- Reuters: "Black, Hispanic investors struggle with faith in crypto" (2023)
- Barron's: "FTX Allegedly Gave Alameda a Hard-Coded Trading Advantage. It Was an 'Astonishing' Lapse in Risk Management" (2022)
- BBC News: "After the FTX chaos, is crypto down and out after a torrid 2022?" (2022)
- Wall Street Journal: "Crypto Speculation Is All But Over. Its Systemic Troubles Aren't" (2022)
- Washington Post: "Sports teams love crypto. What happens when their sponsor strikes out?" (2022)

Additional publications found at: https://www.omidmalekan.com/reading/essays

Endorsements

Nassim Taleb, best-selling author of The Black Swan
"*You must read Omid. He is the best person to agree and disagree with on the subject of cryptos. You learn both ways and can enjoy the argumentation in the process*"

James Altucher, host of the James Altucher Show
"Omid Malekan is my go-to source for all things crypto"

Ben Bernanke, former chair of the Federal Reserve
"Hilarious but misguided"

EDUCATION

COLUMBIA UNIVERSITY, SCHOOL OF ENGINEERING & APPLIED SCIENCE, New York, NY
Bachelor of Science, Engineering Management Systems, May 2002